

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An isolated and purified polynucleotide encoding the amino acid sequence of SEQ ID NO: 64, a T1R receptor, said polynucleotide comprising:

~~—— a) — the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:99, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:62, or SEQ ID NO:63,~~

~~—— b) — a variant of the polynucleotide of SEQ ID NO:1 or SEQ ID NO:99 having at least 95% homology to the polynucleotide of SEQ ID NO:1 or SEQ ID NO:99 and encoding a polypeptide having substantially the same biological activity as a polypeptide encoded by the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:99,~~

~~—— c) — a variant of the polynucleotide of SEQ ID NO:59 or SEQ ID NO:60 having at least 95% homology to the polynucleotide of SEQ ID NO:59 or SEQ ID NO:60 and encoding a polypeptide having substantially the same biological activity as a polypeptide encoded by the nucleotide sequence of SEQ ID NO:59 or SEQ ID NO:60, respectively,~~

~~—— d) — a variant of the polynucleotide of SEQ ID NO:62 or SEQ ID NO:63 having at least 95% homology to the polynucleotide of SEQ ID NO:62 or SEQ ID NO:63 and encoding a polypeptide having substantially the same biological activity as a polypeptide encoded by the nucleotide sequence of SEQ ID NO:62 or SEQ ID NO:63, respectively,~~

~~—— e) — a variant of the polynucleotide of SEQ ID NO:1 or SEQ ID NO:99 having at least 95% homology to the polynucleotide of SEQ ID NO:1 or SEQ ID NO:99 and encoding a polypeptide conferring modified taste perception to one or more taste stimuli relative to a polypeptide encoded by the polynucleotide of SEQ ID NO:1 or SEQ ID NO:99,~~

~~—— f) — a nucleotide sequence encoding the amino acid sequence of SEQ ID NO:2, SEQ ID NO:61, or SEQ ID NO:64, or~~

~~g) a nucleotide sequence substantially complementary to the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:99, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:62, or SEQ ID NO:63.~~

2. (Original) The polynucleotide of claim 1, wherein said polynucleotide is DNA.
3. (Original) The polynucleotide of claim 1, wherein said polynucleotide is RNA.
4. – 7. (Canceled)
8. (Original) An expression vector comprising the polynucleotide of claim 1 operably linked to a promoter.
9. (Original) A host cell comprising the expression vector of claim 8.
10. (Original) The host cell of claim 9 wherein said cell is mammalian.
11. (Original) The host cell of claim 10 wherein said cell is a human, murine, or feline cell.
12. (Original) A cell culture comprising at least one cell of claim 8.
13. (Canceled)
14. (Canceled)
15. (Currently amended) An isolated and purified ~~T1R2-receptor~~ polypeptide comprising the amino acid sequence of SEQ ID NO:64.
- 16.-19. (Canceled)
20. (Currently amended) A kit for the detection of a polynucleotide ~~encoding a feline T1R-receptor~~ comprising a polynucleotide that ~~specifically hybridizes~~ under stringent conditions to a polynucleotide encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:64 of claim 13 and instructions relating to detection of said polynucleotide that specifically hybridizes to said polynucleotide encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:64 of claim 13.

21. (Currently amended) A method of producing a ~~polypeptide~~feline T1R receptor comprising culturing the host cell of claim 9 and recovering said ~~polypeptide~~receptor from said host cell.

22. (Currently amended) The ~~polypeptide~~feline T1R receptor produced according to the method of claim 21.

23. (Currently amended) A method for identifying compounds that interact with a polypeptide comprising the amino acid sequence of SEQ ID NO:64~~feline T1R receptor~~ comprising:

contacting ~~said polypeptide~~a T1R receptor of claim 13 with a test compound, and

detecting interaction between said ~~polypeptide~~receptor and said compound.

24. (Currently amended) The method of claim 23, wherein said ~~polypeptide~~receptor is bound to a solid support.

25. – 41. (Canceled)

42. (Original) The host cell of claim 9 wherein said cell is a bacterial cell.

43. - 80. (Canceled)

81. (New) The polynucleotide of claim comprising the nucleotide sequence of SEQ ID NO: 62 or SEQ ID NO:63.